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EXAMINER

MEHRPOUR, NAGHMEH

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/753,266	UHLIK ET AL.	
	Examiner	Art Unit	
	Naghmeh Mehrpour	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-6, 15-16, 22, 24-27, 34-37, 40-46, 55, 57-69, 78, 80-85**, are rejected under 35 U.S.C. 102(e) as being anticipated by Vialen et al. (US Patent Number 6,810,258).

Regarding claims 1, 16, 41, 60, 85, Vialen teaches a method/apparatus of operating a base station comprising:

receiving a random access request for a traffic channel of a plurality of channels on a first random traffic channel of the plurality of traffic channels the traffic channels to be selectively allocated by the base station for communication with a user terminal (col 9 lines 5-45);

determining whether a traffic channel of the plurality of traffic channels is available to allocate to the requestor (col 9 lines 5-45); and

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communicating to the requestor whether a channel of the plurality of channels available (col 9 lines 5-45).

Regarding claims 2, 42, Vialen teaches a method wherein Communicating includes denying the request for a channel (col 9 lines 5-45).

Regarding claims 3, 22, 25, 43, 61, 83-84, Vialen teaches a method wherein Communicating includes granting the request for a channel by assigning the first channel (col 9 lines 5-45).

Regarding claims 4, 24, 27, 44, 58, Vialen teaches a method wherein Communicating includes granting the request for a channel by assigning a second channel and the first channel (col 9 lines 5-45).

Regarding claims 5, 26, 45, 23, Vialen inherently teaches a method wherein communicating includes granting the request for a channel by assigning a second channel instead of the first channel (col 9 lines 5-45).

Regarding claims 6, 46, 59, 69, 82, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor, causing the processor to perform a

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method, wherein determining includes evaluating a load of the system (col 9 lines 5-45).

Regarding claims 15, 55, 78, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (col 9 lines 5-45). Vialen fails teaches a method further comprising:

- receiving a request for a third channel of the plurality of channels upon assigning of the first channel;

- determining whether a third or fourth channel of the plurality of channels is available (see figure 2, S014); and

- communicating to the requestor the third channel availability or fourth channel availability.

Regarding claim 21, Vialen inherently teaches a method wherein the indication signaling no channel is available (col 9 lines 5-45).

Regarding claims 34, 36, Vialen inherently teaches a method of providing access to a network comprising:

- receiving a request for access on a first channel of a plurality of channels at random from a network subscriber, each channel of the plurality of channels suitable for

accessing the network, and granting access to the network on a channel of the plurality of channels based on an evaluation of factors (col 9 lines 5-45).

Regarding claims 40, 57, 80, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor causing the processor to perform a method wherein determining includes evaluating the radio frequency characteristics of the request col 9 lines 5-45 . Vialen evaluating the characteristic channel (each frequency contains number of channels).

Regarding claim 63, Vialen teaches a system comprising:

- a processor; and a network interface coupled to the processor;
- wherein the processor and the network interface are collectively configured to:
 - receive a request for a channel of a plurality of channels on a first channel of the plurality of channels (col 9 lines 5-45);
 - determine whether a channel of a plurality of channels is available (col 9 lines 5-45); and
 - communicate to the requestor whether a channel of the plurality of channels is available (col 9 lines 5-45).

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Regarding claims 64, Vialen teaches a machine-readable medium (base station is a computer) embodying instruction, the instructions, when executed by a processor, causing the processor to perform a method the method comprising:

receiving a request for a channel of a plurality of channels on a first channel of the plurality of channels;

determining whether a channel of the plurality of channels is available; and communicating to the requestor whether a channel of the plurality of channels available(col 9 lines 5-45).

Regarding claims 65, 81, Vialen teaches a machine-readable medium (base station is a computer) embodying instruction, the instructions, when executed by a processor, causing the processor to perform a method the method comprising:
wherein Communicating includes denying the request for a channel (col 9 lines 5-45).

Regarding claims 66, teaches a machine-readable medium (base station is a computer) embodying instruction, the instructions, when executed by a processor, causing the processor to perform a method the method comprising:

granting the request for a channel by assigning the first channel(col 9 lines 5-45).

Regarding claim 67, Vialen a machine-readable medium (base station is a computer) embodying instruction, the instructions, when executed by a processor, causing the processor to perform a method the method comprising:

granting the request for a channel by assigning a second channel and the first channel col 9 lines 5-45).

Regarding claim 68, Vialen teaches a machine-readable medium (base station is a computer) embodying instruction, the instructions, when executed by a processor, causing the processor to perform a method comprising:

granting the request for a channel by assigning a second channel instead of the first channel(col 9 lines 5-45).

Regarding claims 35, 37, 62, Vialen teaches a method wherein the evaluation factors include subscriber status, subscriber equipment network loading. col 9 lines 5-45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 7-8, 11, 18, 47-48, 51, 70-71, 74,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al. (US Patent Number 6,810,258) in view of Wheeler et al. (US Patent Number 2002/0072348 A1).

Regarding claims 7, 18, 47, 70, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions,

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when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein determining includes evaluating an emergency status of the request. However Wheeler teaches a method wherein determining includes evaluating an emergency status of the request (page 2 sections 0013-0014). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Wheeler with Vialen , in order to enable the user to register automatically in response to the a notification message.

Regarding claims 8, 48, 71, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein determining includes evaluating a status of a subscriber from whom the request originates subscriber. However Wheeler teaches a method wherein determining includes evaluating a status of a subscriber from whom the request originates subscriber (page 1 section 0008). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Wheeler with Vialen, in order to enable the user to register automatically in response to the a notification message.

Regarding claims 11, 51, 74, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein determining includes evaluating a nature of the request. However Wheeler teaches a method wherein determining includes evaluating a nature of the request (page 1 section 0011). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Wheeler with Vialen, in order to enable the user to register automatically in response to the a notification message.

3. **Claims 9-10, 39, 49-50, 56, 72-73, 79**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al. (US Patent Number 6,810,258) in view of Castanho et al. (US Patent Number 2002/0087740 A1).

Regarding claims 9, 49, 72, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein evaluating the status includes evaluating the subscription terms of the subscriber. However Castanho teaches a method wherein evaluating the status includes evaluating the subscription terms of the subscriber (page 2 section 0023). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the

above teaching of Castanho with Vialen, in order to enable the user to register automatically in response to the a notification message.

Regarding claims 10, 39, 50, 56, 73, 79, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein evaluating the status includes evaluating the payment history and usage history of the subscriber (page 2 section 0035). However Castanho teaches a method wherein evaluating the status includes evaluating the payment history and usage history of the subscriber. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Castanho with Vialen, in order to notify roaming subscribers of suitable providers and their associated tariff rates when operating in an unfamiliar location.

4. **Claims 12-14, 52-53, 75-76**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al.(US Patent Number 6,810,258) in view of Mittal et al. (US Patent Number 2003/0163393A1).

Regarding claims 12, 52, 75, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (col 9 lines 5-45), causing the processor to perform a method

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(see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein the nature of the request includes a high bandwidth requirement. However Mittal teaches a method wherein the nature of the request includes a high bandwidth requirement (page 6 section 0071, page 9 section 0098). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Mittal with Vialen, in order to enable the user to have complete control over the network by obtaining successful interface according to frequency platform.

Regarding claims 13, 53, 76, Vialen inherently teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor causing the processor to perform a method (col 9 lines 5-45). Vialen fails to teach a method wherein a nature of the request includes a low bandwidth requirement. However Mittal teaches a method wherein the nature of the request includes a low bandwidth requirement (page 6 section 0071, page 9 section 0099). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Mittal with Vialen, in order to enable the user to have complete control over the network by obtaining successful interface according to frequency platform.

Regarding claims 14, 19, 54, 77, Vialen teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions,

when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Vialen fails to teach a method wherein a nature of the request includes a set of capabilities of equipment used to make the request. However Mittal teaches a method wherein the nature of the request includes a high bandwidth requirement (page 4 section 0042, page 6 section 0071). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Mittal with Vialen, in order to enable the user to have complete control over the network by obtaining successful interface according to device platform.

5. **Claims 17, 38**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al. (US Patent Number 6,810,258) in view of Miller et al. (US Patent Number 6,006,084).

Regarding claim 17, Vialen fails to teach a method wherein a request including a subscriber/an equipment identification. However Miller teach a method wherein a request including a subscriber/an equipment identification (col 14 lines 44-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Miller with Vialen, in order to enable the service provider to have accurate billing information for individual members.

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Regarding claim 38, Vialen fails to teach a method wherein the request includes information related to equipment used by a subscriber making the request. However Miller teach a method wherein a request including a subscriber/equipment identification (col 14 lines 44-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Miller with Vialen, in order to enable the service provider to have accurate billing information for individual members.

6. **Claims 20, 32-33**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al. (US Patent Number 6,810,258) in view of Barany et al. (US Patent Number 2002/0065081).

Regarding claim 20, Vialen fails to teach a method wherein the request including a training sequence. However Barany teaches a communication system that Mobile request including a training sequence (page section 0071, section 0072). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Barany with Vialen, in order to enable the mobile to use different system with different protocols.

Regarding claim 32, Vialen teaches a method further comprising: waiting an inter-channel delay; sending a request for a third channel of the plurality of channels on the

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third channel; receiving an indication of availability of a channel of the plurality channels (col 9 lines 5-45).

Regarding claim 33, Vialen fails to teach a method wherein:

the indication signaling the third channel is not available;

determining no other channels may be requested;

waiting an inter-attempt delay; and

sending a request for the first channel on the first channel.

However Barany teaches the indication signaling the third channel is not available, due to the colliding units (col 6 lines 12-16); and determining no other channels may be requested (col 6 lines 12-16); and

waiting an inter-attempt delay (col 6 lines 16-18); and

sending a request for the first channel on the first channel (col 6 lines 12-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Barnay with Vialen, in order to obtain the optimum traffic channel for use as signaling channel for improving random access communications system.

7. **Claims 28-29, 30-31**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al. (US Patent Number 6,810,258) in view of Buchenhorner et al. (US Patent Number 5,345,5496).

Regarding claims 28, 30, Vialen fails to teach a method comprising:

- sending a request for a third channel of the plurality of channels;
- receiving an indication of availability of a channel of the plurality of channels.

However Buchenhorner teaches a method establishing a communication link comprising:

- sending a request for a third channel of the plurality of channels (col 4 lines 1-2);
- receiving an indication of availability of a channel of the plurality of channels (col 4 lines 2-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Buchenhorner with Vialen, in order to obtain the optimum traffic channel for use as signaling channel thus base station grants the communication channel is greatly enhanced.

Regarding claim 29, Vialen fails to teach a method comprising:

- the indication signaling the third channel is not available. However Buchenhorner teaches a method establishing a communication link comprising:

- the indication signaling the third channel is not available (col 4 lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Buchenhorner with Vialen, in order to obtain the optimum traffic channel for use as signaling channel, thus base station grants of the communication channel is greatly enhanced.

Regarding claim 31, Vialen fails to teach a method comprising:

the indication signaling the fourth channel is available. However Buchenhorner teaches a method establishing a communication link comprising:

the indication signaling the fourth channel is available (col 3 lines 60-68, col 4 lines 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Buchenhorner with Vialen, in order to obtain the optimum traffic channel for use as signaling channel, thus base station grants of the communication channel is greatly enhanced.

8. **Claims 86-91**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vialen et al. (US Patent Number 5,687,171), in view of Schein et al. (US Publication Number 2003/0133426).

Regarding claims 86, 88, 90, Vialen fails to teach a method further comprising calculating a set of spatial multiplexing weights and a set of spatial demultiplexing weights associated with the request. However, Schein teaches a method further comprising calculating a set of spatial multiplexing weights and a set of spatial demultiplexing weights associated with the request (page 2 section 0020). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Schein with Vialen, in order to reduce the interference caused by the broadcast channel.

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Regarding claims 87, 89, 91, Vialen fails to teach a method wherein communicating to the requestor includes using the set of spatial multiplexing weights to tailor a multi-lobe antenna radiation pattern. However, Schein teaches a method wherein communicating to the requestor includes using the set of spatial multiplexing weights to tailor a multi-lobe antenna radiation pattern (page 2 section 0020) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Schein with Vialen, in order to reduce the interference caused by the broadcast channel.

Response to Arguments

9. Applicant's arguments with respect to claims 1-91 have been considered but are moot in view of the new ground(s) of rejection.

The references made herein are done so for the convenience of the applicant. They are in no way meant to limit the reference. The reference **MUST** be considered in its entirety.

Conclusion

10. **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (571) 272-7905.

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The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

June 11, 2007



NAGHMEH MEHRPOUR
PRIMARY EXAMINER